

Title	Organization; State	Investigator	Total Budget*	Project Period
Effects of Microstructural Heterogeneity on Deformation and Failure of Metallic Materials Under Dynamic Loading: A Multicrystal Approach	Arizona State University; Arizona	Peralta, Pedro	\$455,255	2/01/06-1/31/09
Dynamic Ductile Failure and Interface Dynamics Under Extreme Conditions	California Institute of Technology; California	Rosakis, Ares	\$660,000	4/15/06-4/14/09
Center of Excellence for High Pressure Science and Technology	Carnegie Institute of Washington; Washington, D.C.	Hemley, Russ	\$15,000,000	3/01/08-2/28/13
Picosecond Soft X-ray Studies of Dense Plasma Regimes	Colorado State University; Colorado	Rocca, Jorge	\$810,000	4/01/06-3/31/09
Center for the Study of Pulsed-Power-Driven High Energy Density Plasmas	Cornell University; New York	Kusse, Bruce	\$6,500,000	10/01/07-9/30/12
Neutron Induced Reactions on Specific Nuclei	Duke University; North Carolina	Tornow, Werner	\$1,200,000	2/15/06-2/14/09
Electron Interactions in Actinides and Related Systems Under Extreme Conditions	Florida State University; Florida	Tozer, Stanley	\$1,800,000	5/01/06-4/30/09
Experimental Studies of High-Energy Processing of Proto Planetary and Planetary Materials in the Early Solar System	Harvard University; Massachusetts	Jacobsen, Stein	\$620,956	3/1/06-2/28/09
Cross Sections, Level Densities and Strength Functions	North Carolina State University; North Carolina	Mitchell, G.	\$709,000	1/01/06-12/31/08
Studies in Low-Energy Nuclear Science	Ohio University; Ohio	Brune, Carl	\$894,999	3/01/06-2/28/09
Nuclear Probing of Dense Plasmas and Implosion Physics at Omega, Z, Omega with EP and the NIF	Plasma Science and Fusion Center; Massachusetts	Petrasso, Richard	\$1,450,000	4/15/06-4/14/09
Advances in Optical Mixing Techniques for the Effective Control of Parametric Instabilities in Laser-Produced Plasmas	Polymath Research, Inc.; California	Afeyan, Bedros	\$761,617	2/01/06-1/31/09
Fundamental Issues in the Interaction of Intense Lasers with Plasma	Princeton University; New Jersey	Fisch, Nathaniel	\$919,300	3/01/08-2/28/11
Compact Compression of High Intensity Laser Pulse	Princeton University; New Jersey	Fisch, Nathaniel	\$750,000	3/22/07-3/21/10
Validation of Numerical Algorithms in Astrophysical Radiation Magnetohydrodynamics Codes With Z-pinch and Laser Experiments	Princeton University; New Jersey	Stone, James	\$479,610	4/15/06-4/14/09
Measurements of Energy Dependant (n,p) and (n,alpha) Cross Sections of Nanogram	Rensselaer Polytechnic Inst; New York	Danon, Yaron	\$489,568	5/01/06-4/30/09

Quantities of Short-lived Isotopes				
Center of Excellence for Radioactive Ion Beam Studies for Stewardship Science	Rutgers University; New Jersey	Cizewski, Jolie	\$6,842,967	5/15/08-5/14/13
First Principles Investigations of Americium, Plutonium and Their Mixtures Using Dynamical Mean Field Theory	Rutgers University; New Jersey	Kotliar, Gabriel	\$600,000	3/01/06-2/28/09
Thermoelasticity of SSP Materials: An Integrated Acoustic and Diffraction Study	State University of New York at Stony Brook; New York	Li, Baosheng	\$790,515	4/15/06-4/14/09
Modeling and Simulation of Fluid Mixing for Laser Experiments and Supernova	State University of New York at Stony Brook; New York	Glimm, James	\$314,995	5/01/06-4/30/09
Development of New Techniques to Determine Neutron and Charged-Particle Induced Reaction Rates	Texas A&M University; Texas	Tribble, Robert	\$525,000	4/01/06-3/31/09
Detailed Measurements of Turbulent Rayleigh-Taylor Mixing at Large and Small Atwood Numbers	Texas A&M University; Texas	Andrews, Malcolm	\$403,178	4/01/06-3/31/09
Interdisciplinary Focus on Multiscale Physics and Structure Development at Sliding Metal Interfaces	The Ohio State University; Ohio	Rigney, David	\$719,952	3/01/06-2/28/09
The Texas Center for High Intensity Laser Science	University of Texas at Austin, Texas	Ditmire, Todd	\$7,100,000	10/01/07-9/30/12
Development of Designer Diamond Technology for High-Pressure High-Temperature Experiments in Support of the Stockpile Stewardship Program	University of Alabama at Birmingham; Alabama	Vohra, Yogesh	\$570,873	2/10/06-2/09/09
An Experimental Study of the Turbulent Development of Rayleigh-Taylor and Richtmyer-Meshkov Instabilities	University of Arizona; Arizona	Jacobs, Jeffrey	\$814,359	2/15/07-2/14/10
Continuation of the Application of Parallel PIC Simulations to Laser and Electron Transport Through Plasmas Under Conditions Relevant to ICF and HEDS	University of California at Los Angeles; California	Mori, Warren	\$540,000	3/15/06-3/14/09
Dynamics of Materials Under Extreme Conditions	University of California, Berkeley; California	Falcone, Roger	\$773,092	4/15/06-4/14/09
Nuclear Reaction Measurements With Radioactive Beams and Targets	University of California, Berkeley; California	Cerny, Joseph	\$757,535	4/15/06-4/14/09
Neutron-Induced Cross Section Measurements on Americium Isotopes	University of California, Berkeley; California	Nitsche, Heino	\$750,000	5/1/06-4/30/09
Enhanced Functionality for Materials Analysis in the DTEM	University of California, Davis; California	Browning, Nigel	\$750,000	3/01/06-2/28/09
High Pressure Studies of	University of California,	Scaletter,	\$462,299	5/01/06-

Correlated Electron Systems: Experiment and Theory Structure and Thermodynamic Properties	Davis; California	Richard		4/30/09
Experimental Investigation of Magnetic, Superconducting and Other Phase Transitions in Novel F-Electron Materials at Ultrahigh Pressures	University of California, San Diego; California	Maple, Brian	\$800,504	5/01/06-4/30/09
Investigation of Laser Materials Interactions Using Ultrafast Short Wavelength Light	University of Colorado; Colorado	Kapteyn, Henry	\$605,823	4/01/06-3/31/09
Quantum Simulations for Dense Matter	University of Illinois; Illinois	Ceperley, David	\$423,746	5/01/06-4/30/09
Fast Laser Excitation, Ultrafast Quenching and Dynamical Materials Processes	University of Illinois at Urbana-Champaign; Illinois	Averback, Robert	\$498,271	4/01/06-3/31/09
An Experimental-Numerical Study of the Dynamic Response of Metals and Nanostructured Metallic Multilayers	University of Illinois at Urbana-Champaign; Illinois	Robertson, Ian	\$825,000	5/01/06-4/30/09
Hydrodynamics and Radiative Hydrodynamics With Astrophysical Applications	University of Michigan; Michigan	Drake, Paul	\$1,498,530	1/01/07-12/31/09
Proton Radiography: Cross Section Measurements and Detector Development	University of Michigan; Michigan	Longo, Michael	\$534,000	3/10/06-3/09/09
Nuclear Stewardship Research	University of Richmond; Virginia	Beausang, Cornelius	\$510,273	5/01/06-4/30/09
Theoretical Description of the Fission Process	University of Tennessee; Tennessee	Nazarewicz, Witold	\$435,000	7/01/06-6/30/09
Viscosities of Dense Fluids	University of Washington; Washington	Abramson, Evan	\$578,650	2/15/06-2/14/09
Investigation of Rayleigh-Taylor and Richtmyer-Meshkov Instabilities	University of Wisconsin; Wisconsin	Bonazza, Ricardo	\$777,300	11/15/05-12/31/08
Experimental and Modeling Studies on the Dynamics of Photoionized Plasmas	University of Nevada, Reno; Nevada	Mancini, Roberto	\$773,097	9/15/06-9/14/09
High Pressure Research on Complex Hydrides and Energy Storage Materials	University of Nevada, Reno; Nevada	Chandra, Dhanesh	\$491,158	7/01/06-6/30/08

*The dollar amount shown represents the planned award amount over the award period. The total actual award amount may be more or less depending on the outcome of progress reviews and available funding.